

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-6: (canceled).

Claim 7 (previously presented): A synchronous induction motor comprising:

a stator equipped with a stator winding;

a rotor which is secured to a rotating shaft and which rotates in the stator;

a secondary conductor provided around the rotor yoke constituting the rotor; and

a permanent magnet embedded in the rotor yoke,

wherein a magnetic field produced by the permanent magnet does not pass through the rotating shaft, and

wherein at least one void is located in the rotor yoke between the permanent magnet and the rotating shaft.

Claim 8 (previously presented): A synchronous induction motor comprising:

a stator equipped with a stator winding;

a rotor which is secured to a rotating shaft and which rotates in the stator;

a secondary conductor provided around the rotor yoke constituting the rotor; and
a permanent magnet embedded in the rotor yoke,
wherein a magnetic field produced by the permanent magnet bypasses the rotating shaft,
and
wherein at least one void is located in the rotor yoke between the permanent magnet and
the rotating shaft.

Claim 9 (previously presented): A synchronous induction motor comprising:
a stator equipped with a stator winding;
a rotor which is secured to a rotating shaft and which rotates in the stator;
a secondary conductor provided around the rotor yoke constituting the rotor; and
a permanent magnet embedded in the rotor yoke,
wherein a magnetic field produced by the permanent magnet passes through only the rotor
yoke, excluding the rotating shaft, and
wherein at least one void is located in the rotor yoke between the permanent magnet and
the rotating shaft.

Claim 10 (currently amended): A synchronous induction motor comprising:
a stator equipped with a stator winding;
a rotor which is secured to a rotating shaft and which rotates in the stator;

a secondary conductor provided around the rotor yoke constituting the rotor; and
a permanent magnet embedded in the rotor yoke which does not have a length radially disposed; and

secondary permanent magnets each having a linear shape and provided symmetrically about a line that connects two magnetic poles, wherein the secondary permanent magnets have lengths which are radially disposed, and wherein the secondary magnets are substantially adjacent to the rotating shaft,

wherein a magnetic field produced by the permanent magnet does not pass through the rotating shaft.

Claim 11 (currently amended): A synchronous induction motor comprising:

a stator equipped with a stator winding;
a rotor which is secured to a rotating shaft and which rotates in the stator;
a secondary conductor provided around the rotor yoke constituting the rotor; and
a permanent magnet embedded in the rotor yoke which does not have a length radially disposed; and

secondary permanent magnets each having a linear shape and provided symmetrically about a line that connects two magnetic poles, wherein the secondary permanent magnets have lengths which are radially disposed, and wherein the secondary magnets are substantially adjacent to the rotating shaft,

wherein a magnetic field produced by the permanent magnet bypasses the rotating shaft.

Claim 12 (currently amended): A synchronous induction motor comprising:

a stator equipped with a stator winding;

a rotor which is secured to a rotating shaft and which rotates in the stator;

a secondary conductor provided around the rotor yoke constituting the rotor; and

a permanent magnet embedded in the rotor yoke which does not have a length radially disposed; and

secondary permanent magnets each having a linear shape provided symmetrically about a line that connects two magnetic poles, wherein the secondary permanent magnets have lengths which are radially disposed, and wherein the secondary magnets are substantially adjacent to the rotating shaft,

wherein a magnetic field produced by the permanent magnet passes through only the rotor yoke, excluding the rotating shaft.

Claim 13 (previously presented): The synchronous induction motor as recited in claim 8, wherein said at least one void has a shape of an arc of a circle.

Claim 14 (previously presented): The synchronous induction motor as recited in claim 9, wherein said at least one void has a shape of an arc of a circle.

Claim 15 (Currently amended): The synchronous induction motor as recited in claim [[10]] Z, wherein said at least one void has a shape of an arc of a circle.

Claim 16 (New): A synchronous induction motor comprising:
a stator equipped with a stator winding;
a rotor which is secured to a rotating shaft and which rotates in the stator;
a secondary conductor provided around the rotor yoke constituting the rotor;
a permanent magnet embedded in the rotor yoke which does not have a length radially disposed; and
secondary permanent magnets each having an arcuate shape curving around the rotating shaft and provided symmetrically about a line that connects two magnetic poles,
wherein the secondary permanent magnets have lengths which are radially disposed,
wherein the secondary magnets are substantially adjacent to the rotating shaft, and
wherein a magnetic field produced by the permanent magnet does not pass through the rotating shaft.

Claim 17 (New): A synchronous induction motor comprising:

a stator equipped with a stator winding;
a rotor which is secured to a rotating shaft and which rotates in the stator;
a secondary conductor provided around the rotor yoke constituting the rotor;
a permanent magnet embedded in the rotor yoke which does not have a length radially disposed; and
secondary permanent magnets each having an arcuate shape curving around the rotating shaft and provided symmetrically about a line that connects two magnetic poles,
wherein the secondary permanent magnets have lengths which are radially disposed,
wherein the secondary magnets are substantially adjacent to the rotating shaft, and
wherein a magnetic field produced by the permanent magnet bypasses the rotating shaft.

Claim 18 (New): A synchronous induction motor comprising:

a stator equipped with a stator winding;
a rotor which is secured to a rotating shaft and which rotates in the stator;
a secondary conductor provided around the rotor yoke constituting the rotor;
a permanent magnet embedded in the rotor yoke which does not have a length radially disposed; and
secondary permanent magnets each having an arcuate shape curving around the rotating shaft provided symmetrically about a line that connects two magnetic poles,

wherein the secondary permanent magnets have lengths which are radially disposed,
wherein the secondary magnets are substantially adjacent to the rotating shaft, and
wherein a magnetic field produced by the permanent magnet passes through only the rotor
yoke, excluding the rotating shaft.